

Tilapia coffea

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, June 2015

Photo not available.

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2015):

“Africa: At present only known from and probably endemic to the St. Paul River, Liberia [Teugels and Thys van den Audenaerde 2003].”

Status in the United States

This species has not been reported in the U.S.

Means of Introductions in the United States

This species has not been reported in the U.S.

Remarks

From Entsua-Mensah (2010):

“This species is restricted to one location, the Saint Paul River in Liberia where it is probably endemic. The estimated EOO is less than 1,000 km² and the AOO is less than 10 km². There is ongoing decline in habitat quality due to sedimentation and pollution from deforestation and mining. The species is therefore assessed as Critically Endangered.”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2015):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii

Infraclass Teleostei
Superorder Acanthopterygii
Order Perciformes
Suborder Labroidei
Family Cichlidae
Genus Tilapia
Species *Tilapia coffea* Thys van den Audenaerde, 1970”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length : 16.1 cm TL male/unsexed; [Teugels and Thys van den Audenaerde 2003]”

Environment

From Froese and Pauly (2015):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2015):

“Tropical; 8°N - 6°N”

Distribution Outside the United States

Native

From Froese and Pauly (2015):

“Africa: At present only known from and probably endemic to the St. Paul River, Liberia [Teugels and Thys van den Audenaerde 2003].”

Introduced

No introductions of this species have been reported.

Means of Introduction Outside the United States

No introductions of this species have been reported.

Short description

From Froese and Pauly (2015):

“Dorsal spines (total): 13 - 15; Dorsal soft rays (total): 14-16; Anal spines: 3; Anal soft rays: 9 - 11. Diagnosis: lower pharyngeal bone about as long as broad, with anterior lamella shorter than toothed area; median pharyngeal teeth not broadened; dorsal and caudal fins densely blotched;

dorsal fin with 13-15 spines and 14-17 soft rays (mean 14.15); 9-12 lower gill-rakers [Teugels and Thys van den Audenaerde 2003].”

Biology

No information available.

Human uses

No information available.

Diseases

No OIE-notifiable diseases have been reported for this species.

Threat to humans

From Froese and Pauly (2015):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported.

4 Global Distribution



Figure 1. Distribution of *T. coffea*. Map from GBIF (2015).

5 Distribution within the United States

This species has not been reported in the U.S.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous U.S., reflected in a Climate 6 proportion of 0.0. The range for a low climate match is 0.000 to 0.005.

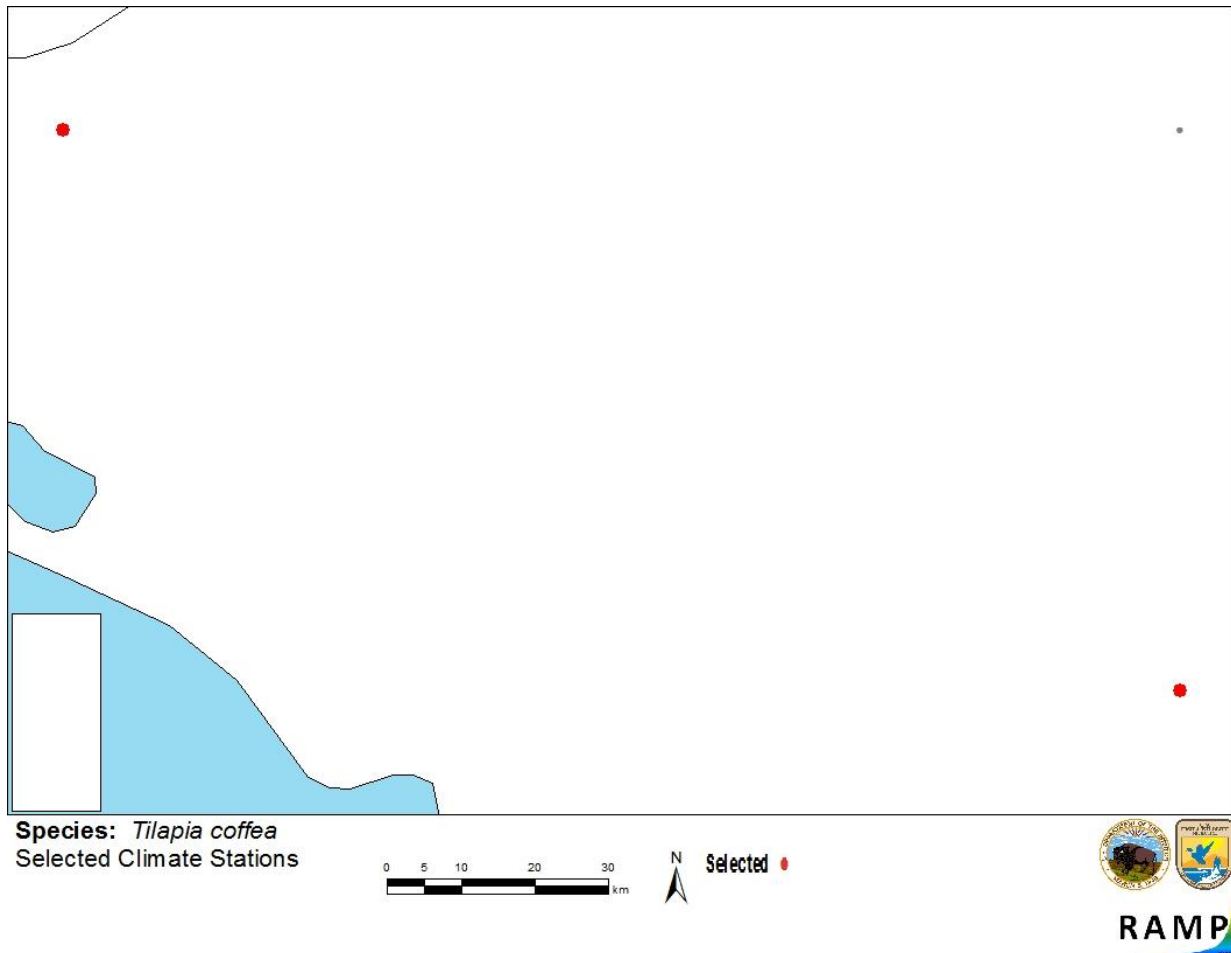


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. coffea* climate matching. Source locations from GBIF (2015). Source locations are all in Liberia.

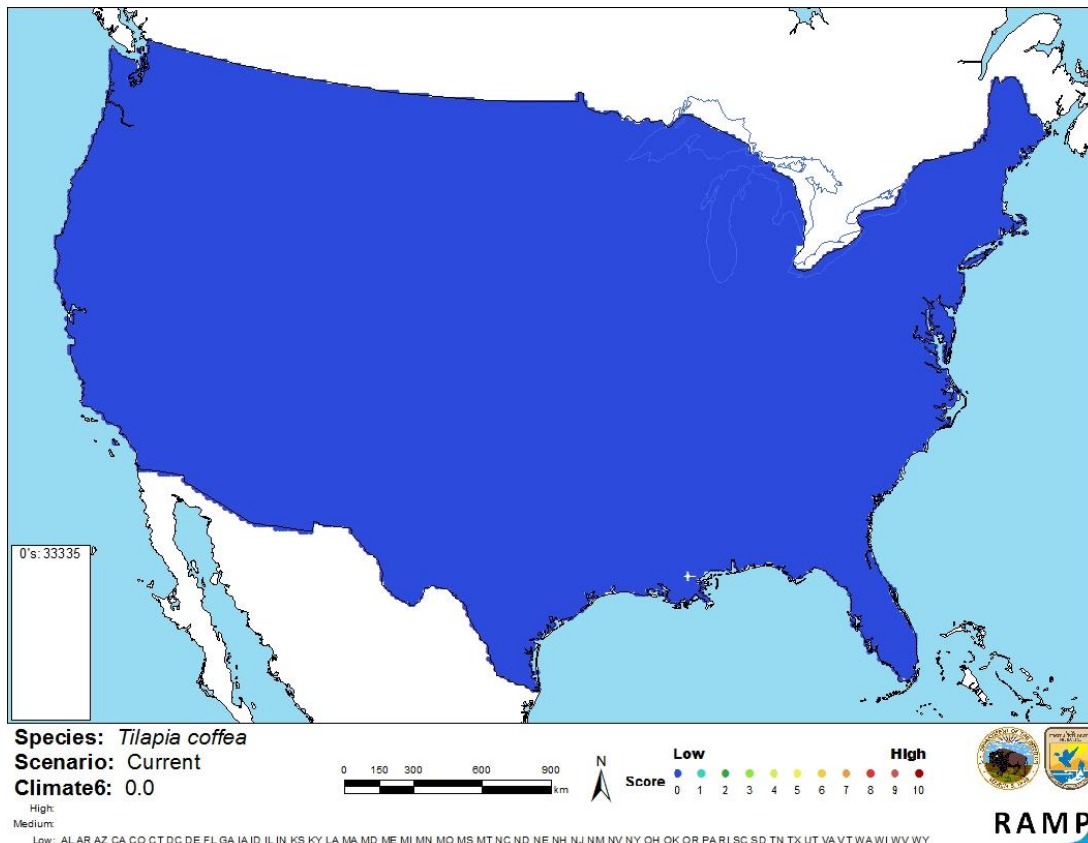


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. coffea* in the continental United States based on source locations reported by GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

7 Certainty of Assessment

Little information is available on the biology of *T. coffea* and it has not become established outside its native range. The certainty of this assessment is high because the lack of information about this species precludes any assessment other than “uncertain” risk.

8 Risk Assessment

Summary of Risk to the Continental United States

Tilapia coffea is a demersal cichlid known only from Liberia. It has not been reported outside its native range. Because *T. coffea* has no history of invasion, it is currently impossible to know what impacts *T. coffea* might have if introduced to the U.S. Climate match to the contiguous U.S. is low. Overall risk is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3):** Uncertain
- **Climate Match (Sec.6):** Low
- **Certainty of Assessment (Sec. 7):** High
- **Overall Risk Assessment Category:** Uncertain

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

Entsua-Mensah, M. 2010. *Tilapia coffea*. The IUCN Red List of Threatened Species, version 2015.2. Available: <http://www.iucnredlist.org/details/181946/0>. (June 2015).

Froese, R., and D. Pauly, editors. 2015. *Tilapia coffea* Thys van den Audenaerde, 1970. FishBase. Available: <http://www.fishbase.org/summary/8912>. (June 2015).

Global Biodiversity Information Facility (GBIF). 2015. GBIF backbone taxonomy: *Tilapia coffea* Thys van den Audenaerde, 1970. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2370721>. (June 2015).

Integrated Taxonomic Information System (ITIS). 2015. *Tilapia coffea* Thys van den Audenaerde, 1970. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648962. (June 2015).

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.

10 References Quoted But Not Accessed

Note: The following references are cited within quoted text within this ERSS, but were not accessed for its preparation. They are included here to provide the reader with more information.

Teugels, G. G., and D. F. E. Thys van den Audenaerde. 1991. *Tilapia*. Pages 482-508 in J. Daget, J.-P. Gosse, G. G. Teugels, and D. F. E. Thys van den Audenaerde, editors. Check-list of the freshwater fishes of Africa (CLOFFA), volume 4. ISNB, Brussels; MRAC, Tervuren; and ORSTOM, Paris.

Teugels, G. G., and D. F. E. Thys van den Audenaerde. 2003. *Cichlidae*. Pages 521-600 in D. Paugy, C. Lévêque and G. G. Teugels, editors. The fresh and brackish water fishes of West Africa Volume 2. Coll. faune et flore tropicales 40. Institut de recherche de développement, Paris, France, Muséum national d'histoire naturelle, Paris, France and Musée royal de l'Afrique Central, Tervuren, Belgium.